



(19)

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 158 016 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
12.12.2001 Bulletin 2001/50

(51) Int Cl.7: **C08J 5/18**
// C08L29:04

(43) Date of publication A2:
28.11.2001 Bulletin 2001/48

(21) Application number: **01111749.6**

(22) Date of filing: **15.05.2001**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **16.05.2000 JP 2000142942**

(71) Applicant: **The Nippon Synthetic Chemical**
Industry Co., Ltd.
Osaka-shi, Osaka 531-0076 (JP)

(72) Inventor: **Mizutani, Tomoyoshi,**
c/oCent.Rese.Labo. of Nippon
Ibaraki-shi, Osaka 567-0052 (JP)

(74) Representative: **Weber, Thomas, Dr. et al**
Patentanwälte
von Kreisler-Selting-Werner,
Deichmannhaus am Dom
50667 Köln (DE)

(54) **Film for packaging chemical agents**

(57) The present invention provides a film for packaging chemical agents, which contains an oxyalkylene unit-containing polyvinyl alcohol resin (A) and a carboxyl-containing polyvinyl alcohol resin (B), and preferably further containing a sulfo-containing polyvinyl alcohol resin (C). This film shows fine solubility in water even after a long-term packaging of an acidic chemical agent

or alkaline chemical agent, and is superior in mechanical strength. Thus, the film for packaging chemical agents of the present invention is suitably used for packaging a chemical agent, such as powdered soap, synthetic detergent, agricultural chemical, antibacterial, deodorant, insecticide and the like, which is cast into water when in use.

EP 1 158 016 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 11 1749

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 05, 30 June 1995 (1995-06-30) & JP 07 041633 A (NIPPON SYNTHETIC CHEM IND CO LTD:THE), 10 February 1995 (1995-02-10) * abstract *	1-8	C08J5/18 //C08L29:04
D,Y	PATENT ABSTRACTS OF JAPAN vol. 012, no. 444 (C-545), 22 November 1988 (1988-11-22) & JP 63 168437 A (NIPPON SYNTHETIC CHEM IND CO LTD:THE), 12 July 1988 (1988-07-12) * abstract *	1-8	
A	--- DATABASE WPI Section Ch, Derwent Publications Ltd., London, GB; Class A16, AN 1971-67713S XP002177507 & JP 46 035972 B (NIPPON SYNTHETIC CHEM IND CO) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C08J C08L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 October 2001	Examiner Niaounakis, M
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 (03.02.92) (Rev.01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 11 1749

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

11-10-2001

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 07041633	A	10-02-1995	NONE	
JP 63168437	A	12-07-1988	JP 6027205 B	13-04-1994
JP 46035972	B		NONE	

EPO FORM P0439

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82